

(NO. OF PAGES: 3)

(FOR THE CANDIDATES ADMITTED

SUBJECT CODE

DURING THE ACADEMIC YEAR 2022 ONLY)

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : NOVEMBER 2023

B.Sc-INFORMATION TECNOLOGY

MAXIMUM MARKS: 50

SEMESTER : III

TIME : 3 HOURS

PART - III

22UIT3A3 – MICROPROCESSOR AND ALP

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.(K1)

1. The microprocessor of a computer can operate on any information if it is present in ____ only.
(a) Program counter (b) Flag (c) Main memory (d) Secondary memory
2. Which of the following is not a data copy / transfer instruction?
(a) POP (b) DAS (c) MOV (d) PUSH
3. The first processor with an inbuilt floating point unit is _____.
(a) 80386 (b) 80286 (c) 8086 (d) 80486
4. Which of the following is not an independent engine of Pentium Pro?
(a) Control-execute unit (b) Fetch-decode unit
(c) Dispatch-execute unit (d) Retire unit
5. In ADC 0809 acting as a CMOS device, how many analog inputs & channel multiplexers are present?
(a) 16 (b) 8 (c) 4 (d) 2

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES

(K2)

6. Define: Vector.
7. Explain Arithmetic group.
8. Define: Interrupts.
9. Explain the functionality of retire unit.
10. Expand: (i) CMOS (ii) ADC

(CONTD 2)

SECTION – B**(5 X 3 = 15 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.(K3)**

11. a) Describe the RISC and CISC processor with their advantages and disadvantages.
(OR)
b) Examine the register organization of 8086.
12. a) Describe the various instruction groups for Intel 8086 microprocessor with examples.
(OR)
b) Find the largest number in a data array using assembly language program.
13. a) Compute the operating modes of Intel 486.
(OR)
b) Discuss the functions of a memory management unit. What is swapping?
14. a) Discuss the architecture of Pentium Pro processor. How does it implement data flow design in its architecture?
(OR)
b) Classify the Quad and Octa core processors.
15. a) Describe the Bipolar to Unipolar connectors.
(OR)
b) Sketch and explain the LF398 Sample and Hold Circuit.

SECTION – C**(5 X 5 = 25 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.(K4/ K5)**

16. a) Discuss in detail about Pin description of Intel 8086.
(OR)
b) Summarize the addressing modes of 8086.
17. a) Classify the 8086 MOV instructions with examples.
(OR)
b) Write assembly language program to arrange numbers in ascending order and descending order.
18. a) Discuss in detail about Intel 486DX architecture.
(OR)
b) Construct the pin configuration and signals of 80486.
19. a) Draw the schematic block diagram of Pentium processor and discuss its various blocks.
(OR)
b) Summarize the functionality of Core i3 processor.
20. a) Discuss about interfacing of ADC0809.
(OR)
b) Determine the microprocessor based measurement and control of physical quantities.